

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Previously Presented) An ink jet printer ejecting a plurality of kinds of ink droplets of different sizes from a single nozzle depending upon data to be printed, thereby forming an image on a prescribed recording medium using dots of sizes corresponding to the sizes of the ink droplets, comprising:

a smoother for performing a smoothing process using a dot smaller than a dot forming said image, wherein said smaller dot and said image forming dot are ejected from said single nozzle; and

a controller for controlling said smoother to print a center of said smaller size dot close to a center of said image forming dots at a distance smaller than the pitch of the image forming dots.

2. (Original) The ink jet printer as recited in claim 1, wherein said controller controls the position of printing the smaller dot by controlling the timing of printing the smaller dot.

3. (Original) The ink jet printer as recited in claim 2, wherein in said timing control, the timing of applying signal voltage to print said smaller dot is controlled.

4. (Canceled)

5. (Original) The ink jet printer as recited in claim 1, wherein said controller controls the printing position of the smaller dot by changing the speed of ejection of an ink droplet forming said smaller dot.

6. (Original) The ink jet printer as recited in claim 5, wherein said speed of ejection of said ink droplet is changed by changing a change degree in signal voltage to print said dot.

7. (Original) The ink jet printer as recited in claim 1, wherein said ink jet printer comprising an ink jet head ejecting said ink droplet, said ink jet head being moved at a prescribed speed in a prescribed direction, and said controller controls the printing position of said smaller dot based on the ejection speed of the ink droplet and said scanning speed.

8. (Original) The ink jet printer as recited in claim 1 further comprising determination means for determining a direction of the printing position of said smaller dot, said controller controlling the printing position of said smaller dot according to the determination.

9. (Previously Presented) An ink jet printer, comprising:
an ink jet head for ejecting a plurality of kinds of ink droplets, including smoothing droplets and image forming droplets, of different sizes from a single nozzle based on data to be printed, thereby printing, on a prescribed recording medium, dots of sizes corresponding to the sizes of the ink droplets; and

a controller for changing a distance between the centers of adjacent dots thereby to change the printing position of at least the smoothing dots based on the size of the dot in printing said plurality of kinds of dots.

10. (Previously Presented) The ink jet printer as recited in claim 9, wherein said controller controls said printing position by controlling the timing of printing said smoothing dots.

11. (Original) The ink jet printer as recited in claim 10, wherein in said timing control, the timing of applying signal voltage to print said dot is controlled.

12. (Canceled)

13. (Previously Presented) The ink jet printer as recited in claim 9, wherein said controller controls the printing position of said smoothing dots by changing the ejection speed of the ink droplet.

14. (Original) The ink jet printer as recited in claim 13, wherein the speed of ejection of said ink droplet is changed by changing a change degree in signal voltage to print said dot.

15. (Previously Presented) The ink jet printer as recited in claim 9, wherein said ink jet head is moved at a prescribed scanning speed in a prescribed direction,

and said controller controls the printing position of the smoothing dots based on the ejection speed of the ink droplet and said scanning speed.

16. (Previously Presented) The ink jet printer as recited in claim 9 further comprising determination means for determining a direction of the printing position of said smoothing dots, said controller controlling the printing position of said smoothing dots according to the determination.

17. (Previously Presented) A method of controlling printing in an ink jet printer which ejects a plurality of kinds of ink droplets of different sizes including image forming droplets and smoothing droplets from a single nozzle based on data to be printed, thereby printing, on a prescribed recording medium, image forming dots and smoothing dots of sizes corresponding to the sizes of the ink droplets, comprising the steps of:

determining whether or not control of the printing position of a smoothing dot is necessary; and

controlling the timing of printing the smoothing dot if it is determined necessary.

18. (Original) The method as recited in claim 17, wherein in said timing control, the timing of applying signal voltage to print said dot is controlled.

19. (Canceled)

20. (Original) The method as recited in claim 17, wherein said printing position of said dot is controlled by changing the speed of ejection of said ink droplet.

21. (Original) The method as recited in claim 20, wherein the speed of ejection of the ink droplet is changed by changing a change degree in signal voltage to print said dot.

22. (Original) The method as recited in claim 17, wherein said ink jet printer includes an ink jet head for ejecting said ink droplets, said ink jet head is moved at a prescribed scanning speed in a prescribed direction, and said controller controls the printing position of the dot based on the speed of ejection of said ink droplets and said scanning speed.

23. (Original) The method as recited in claim 17, further comprising a step of determining a direction of controlling said printing position of a dot, if it is determined that the control of said printing position is necessary.

24. (Previously Presented) An ink jet printer comprising:
a nozzle for ejecting ink droplets of different sizes to form an image on a recording medium with image forming dots and smoothing dots, wherein said smoothing dots are smaller than the image forming dots; and
a smoother for smoothing the image by arranging the smoothing dots around edges of the image forming dots,

wherein a distance between a center of at least one of the smoothing dots and a center of one of the image forming dots adjacent to said one smoothing dot is shorter than a distance between the centers of adjacent image forming dots.

25. (Previously Presented) The ink jet printer as recited in claim 24, wherein said distance between the center of the smoothing dot and the center of the image forming dot adjacent to said one smoothing dot is controlled by controlling the timing of printing the smoothing dots.

26. (Previously Presented) The ink jet printer as recited in claim 25, wherein in said timing control, the timing of applying signal voltage to print said smoothing dot is controlled.

27. (Previously Presented) An ink jet printer as recited in claim 24, wherein said distance between the center of the smoothing dot and the center of the image forming dot adjacent to said smoothing dot is controlled by controlling the speed of ejection of an ink droplet forming said smoothing dot.

28. (Previously Presented) An ink jet printer as recited in claim 27, wherein said speed of ejection of said ink droplet is controlled by varying a change degree in signal voltage to print said smoothing dot.

29. (Previously Presented) An ink jet printer as recited in claim 24, wherein said nozzle moves along the recording medium during a printing operation, and said

distance between the smoothing dot and the center of the image forming dot adjacent to said smoothing dot is controlled based on the ejection speed of the ink droplet and the moving speed of the nozzle.

30. (Previously Presented) A method of controlling printing in an ink jet printer having a nozzle for ejecting ink droplets of different sizes to form an image on a recording medium using dots of sizes corresponding to sizes of the ink droplets, said method comprising:

performing a smoothing process to image data to smooth an image to be printed; and

ejecting ink droplets of different sizes from the nozzle based on the image data on which has been performed the smoothing process so that smoothing dots are arranged around edges of the image forming dots,

wherein said smoothing dots are smaller than the image forming dots, and a distance between a center of at least one of the smoothing dots and a center of one of the image forming dots adjacent to said one smoothing dot is shorter than a distance between the centers of adjacent image forming dots.

31. (Previously Presented) An ink jet printer comprising:

an ink jet head comprising at least one nozzle which is capable of ejecting ink droplets of different sizes to form, on a recording medium, image forming dots and smoothing dots, wherein the smoothing dots are smaller than any one of the image forming dots, said ink jet head being capable of scanning on the recording medium while ejecting, from the at least one nozzle, the ink droplets to form an image

consisting of the image forming dots and the smoothing dots that are located on any one of a plurality of scanning lines; and

a smoother for smoothing the image by arranging the smoothing dots around edges of the image forming dots,

wherein, on each scanning line, a distance between a center of one of the smoothing dots and a center of one of the image forming dots adjacent to said one smoothing dots is shorter than a distance between the centers of adjacent image forming dots.

32. (Previously Presented) The ink jet printer as recited in claim 31, wherein said distance between the center of the smoothing dot and the center of the image forming dot adjacent to said one smoothing dot is controlled by controlling the timing of printing the smoothing dots.

33. (Previously Presented) An ink jet printer as recited in claim 31, wherein said nozzle moves along the recording medium during a printing operation, and said distance between the smoothing dot and the center of the image forming dot adjacent to said smoothing dot is controlled based on the ejection speed of the ink droplet and the moving speed of the nozzle.

34. (New) The ink jet printer of claim 1, wherein said smaller dot and said image forming dot are ejected from said single nozzle during a single scan.

35. (New) The ink jet printer of claim 9, wherein the smoothing droplets and image forming droplets are ejected from the single nozzle during a single scan.

36. (New) The method of controlling printing in an ink jet printer of claim 17, wherein the plurality of kinds of ink droplets of different sizes including image forming droplets and smoothing droplets are ejected from the single nozzle during a single scan.

37. (New) The ink jet printer of claim 24, wherein the nozzle is for ejecting ink droplets of different sizes during a single scan.

38. (New) The method of claim 30, further comprising ejecting ink droplets of different sizes from the nozzle during a single scan.